Spring 2005 Vol. 1, No. 2

Measure Up

The Nation's Report Card NAEP

Assessment News for Elementary School Teachers

Sampling in NAEP:
Why NAEP Does Not Assess All Students

by Keith Rust

The National Assessment of Educational Progress (NAEP) does not report results for individual students or even individual schools. NAEP provides estimates of various characteristics of the population of students for a particular grade within a particular state or in the nation as a whole. The reporting generally involves student achievement in one of the subject areas covered by NAEP, such as reading, mathematics, or science.

Because NAEP provides estimates for the population, it is not necessary to include every school and student in the sample. Instead, the results are derived from a representative sample of students from within a particular grade. To make the illustration clearer, let's consider the process through a single state, though the principles involved apply to NAEP's national samples as well.

The goal of NAEP's sampling procedures is to obtain a representative sample of students for each assessment given within the state. This is achieved through a three-stage process. First, a representative sample of schools is selected. Then within each selected school, a sample of students (although sometimes all of them) is selected. Finally, when NAEP is assessing more than one subject within a given assessment cycle, each sampled student is assigned to just one of these subject assessments.

The school sample is designed and selected with two related goals in mind. The first is to ensure that the sample is representative of the different kinds of schools within the state. The characteristics considered in this process are urban/rural status, the proportion of racial and ethnic minorities, the school standing on statewide achievement tests, and the socioeconomic status of the students. The relative emphasis on each of these characteristics varies by state, as some states are much more

See Sampling in NAEP *on page 9*

NAEP Frameworks
Blueprint for Assessment

by Marilyn Whirry

NAEP frameworks are plans for developing an assessment tool in a specific subject area and determining the content to be assessed. The Merriam-Webster dictionary defines a framework as *a basic conceptual structure (as of ideas); a frame of reference*. That is precisely what NAEP frameworks do. They provide a basic conceptual structure or vision of how to capture data on what students must know and be able to do.

Frameworks differ from standards, but are predecessors to them. While a framework is a steppingstone to assessment, standards are the specific expectations in the subject area being developed. A reading framework, for example, defines the areas of reading to be tested (see the reading framework table on page 7), while a reading standards document specifically states what a student must do to demonstrate proficiency.

See Frameworks *on page 7*

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Assessment of Special Needs Students
NAEP Accommodations Strive for Inclusion

NAEP has always endeavored to assess a high proportion of sampled students who are classified by their schools as students with disabilities (SD), limited English proficient (LEP), and/or English-language learners (ELL). However, prior to 1996 NAEP had no policy of allowing accommodations for SD or LEP students. This resulted in the exclusion of some students who could not meaningfully participate in the assessment without accommodations. In 1996, NAEP began efforts to study the effect of assessment accommodations on NAEP results and initiated a transition in which NAEP's official reporting samples would include students assessed with accommodations.

Today, the decision to include any of these students is made by school staffs who, using NAEP guidelines and each student's Individualized Education Program (IEP), decide whether and and how to assess the student.

According to the current criteria, a student with a disability is to be included in the NAEP assessment except in the following cases:

See Special Needs *on page* 4

Thirty Years of Data Reveal Performance Trends

The National Assessment of Educational Progress (NAEP) has served as the nation's only ongoing indicator of student achievement since 1969. There are two types of NAEP assessments, main NAEP and long-term trend. Main NAEP assessments are administered in varying subjects each year while long-term trend assessments are administered in mathematics, science, reading, and writing about once every four years. (See the NAEP Schedule of Assessment on page 5.) Unlike main NAEP assessments, long-term trend NAEP assessments replicate past procedures and item content to enable the analysis of student performance over time.

In 1999, the long-term trend assessments in reading, mathematics, and science were administered for the last time in the twentieth century. How did America's students perform over the first 30 years? The findings have been released by NAEP in an executive summary report entitled, *Trends in Academic Progress: Three Decades of Student Performance*.

The findings reflect student performance across the nation at ages 9, 13, and 17. The following information summarizes the trends that emerged based on data collected from assessments taken by nine-year-olds.

General Trends in Reading, Mathematics, and Science Assessment

Reading

- Average scores in reading increased during the 1970s.
- Since 1980, average scores have shown no improvement in reading.
- The average score in 1999 was higher than it was in 1971.

Mathematics

- Average scores were stable throughout the 1970s.
- Average scores increased in the 1980s and the 1990s.
- The 1999 average score was higher than that in 1973.

See Performance Trends *on page* 11

From The Editor's Desk

Dr. Marilyn Whirry

National Teacher of the Year, 2000

Education is a never-ending need to look for answers. It is a lifelong, active process that begins each day between teachers and students in the classrooms of the world.

Teachers have a great responsibility to the many students who come before them. We must possess a passion for knowledge that our students can sense and feel. We must then help our students develop a desire for the search for knowledge—a search to know the 'what' and the 'why,' to understand the world we live in, to understand the hearts and minds of others. Knowledge opens the mind to the unknown and to the possibilities in life. The desire for the search for knowledge develops a depth of inquisitiveness and understanding on the part of both teacher and student.

Students can develop in many ways if they have before them a knowledgeable and passionate teacher. Albert Camus once said, "Greatness consists in trying to be great." And there is greatness in teachers who continually strive to learn and know. They understand their subject matter, they employ exciting classroom strategies, and they understand the characteristics of good assessment.

To be fully knowledgeable in their fields, teachers must be committed to good assessment. We must ask the questions and seek the answers that will provide clarification. That is what this newspaper has as its goal. It is written for you. We want to answer your specific questions, give you background knowledge, and eliminate any concerns you may have about assessment in general and NAEP specifically.

In this issue of *Measure Up*, we present to you an introduction to the NAEP frameworks that provides a vision for good teaching and good testing. The frameworks aid us in understanding the components of a good assessment. Read how one district raised its test scores by incorporating the frameworks into its daily curriculum.

It is important to prepare students to feel comfortable and knowledgeable in their classroom assignments as well as in testing situations. Therefore, we have included articles on how to calm students' fears and how to prepare students for large-scale assessments. We have also provided you with guidelines for testing special needs students and an outline of the testing requirements mandated under *No Child Left Behind*.

Very often it is the role of the teacher to inform and educate parents about NAEP and other assessments. To help you with this task, we have included several resources that explain the NAEP assessment process, an article on how your PTA can help with assessment notification, and a series of responses to questions most frequently asked by parents about testing.

Also included in this edition are other articles that will inform and interest you, such as the results from 30 years of long-term trend assessments and a behind the scenes look at how schools and students are selected to participate in NAEP assessments.

What you know now is what your students will know soon. We must make this knowledge complete, sincere, deep, and passionate. It is our goal to help you achieve your goal. We hope you will be enlightened and inspired by the news and information you find in this edition of *Measure Up*. ■

Dr. Marilyn Whirry taught for forty years at the high school and university levels and has presented at over 450 workshops to teachers all over the United States and Japan. She served on the National Assessment Governing Board (NAGB) for eleven years and currently serves as a NAEP consultant. During Dr. Whirry's professional career, she received many awards, including being named National Teacher of the Year 2000.

Assessment Requirements in *No Child Left Behind*

The express purpose of the *No Child Left Behind* act of 2001 is to close the achievement gap among students through accountability, research-based instruction, differentiated instruction, and options for parents, so that no child in the educational community is left behind. Assessments are necessary to determine the breadth and width of the gap that now exists. To reach the goal of high achievement for all children, teachers must accurately and efficiently measure whether or not students are meeting the standards of learning expected of them. This knowledge helps teachers to diagnose problems and offer immediate intervention.

No Child Left Behind (NCLB) requires states to implement an accountability system that verifies the adequate yearly progress of all public schools toward state academic achievement goals and demonstrates that students are meeting grade level content and achievement standards in mathematics and reading. States have until the 2005-06 school year to have annual mathematics and reading assessments in place. Until then, they must administer annual assessments in reading and mathematics at least once during grades 3–5, 6–9, and 10–12. Every state is also required to take part in the National Assessment of Educational Progress (NAEP), in which a sample of students in each state is assessed in mathematics and reading in grades 4 and 8. In the 2007-08 school year, states are required to begin testing in science once in grades 3–5, 6–9, and 10–12.

No Child LEFT BEHIND

Although some states already have their assessments in place, others are in the process of developing them. For the current year alone, Congress provided states with $390 million to pay for the assessments. President Bush has stated, "In order to make sure children are not simply shuffled through the system we must measure them. We must determine what needs to be corrected early, before it's too late." NCLB calls for all students to be at grade level in reading and mathematics by the 2013-14 school year. ■

4th graders who reported reading for fun every day or almost every day in 2001:

United States: 35%
International Average: 40%

Source: Progress in International Reading Literacy Study (PIRLS)

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Measure Up — The newspaper's goal is to familiarize teachers with NAEP and to inform teachers about assessment topics.

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Parents' Most Frequently Asked Questions

The most common questions asked by parents of students who have been selected to participate in a NAEP assessment involve understanding the NAEP testing process and what participation means for their child. Here is a sample of some of the most frequently asked questions and their answers.

What is the NAEP assessment? NAEP stands for the National Assessment of Educational Progress. Often called the "Nation's Report Card," it is the only measure of student achievement in the United States that compares the performance of students in one state with the performance of students in states across the nation. NAEP assessments have been conducted for over 30 years under the sponsorship of the U.S. Department of Education.

Why do we need both state achievement tests and national assessments? State tests measure student performance on an individual state's curriculum standards, allow comparisons of results over time within that state, and often give individual student scores so that parents can know how their child is performing. However, state tests do not provide comparisons of results with other states, across regions with similar resources or students, or across the nation, as NAEP allows. We need both types of assessment because together they provide educators and policymakers with a comprehensive picture of state and national student performance.

Why does my state participate in NAEP? States use NAEP results to supplement their own testing information and to see how their state performs in relation to the nation and other states. Additionally, the *No Child Left Behind* legislation passed by the U.S. Congress in 2001 requires that states receiving federal "Title I" education funds participate in NAEP reading and mathematics assessments at grades 4 and 8 in order to continue receiving those funds.

How many schools in my state have been selected? In a typical state, 120 schools are selected in grade 4 and 100 schools in grade 8. These schools are selected to represent the demographic and geographic composition of the entire state.

How was my child selected and does he/she have to participate in NAEP? Within a selected school and grade, 25 to 30 students are randomly selected for each subject tested. NAEP is voluntary for students, but the participation of every student selected helps to ensure the most accurate measure of student performance in your state and the nation.

What types of questions are asked on NAEP assessments? NAEP assessments consist of multiple choice and open-ended questions and are divided into two sections: subject-specific test questions and questions about students' backgrounds and educational experiences. By law, all NAEP questions are secular, neutral, and non-ideological.

Test questions are written to measure 4th, 8th, and 12th graders' knowledge and skills in a variety of subjects, including reading, mathematics, writing, science, U.S. history, geography, civics, and the arts. Each of these subjects is tested periodically, and individual students are asked questions on only one subject per assessment.

Background questions are asked to get information about students' gender, race and ethnicity, and other topics. The questions are required by Congress to provide a more informative picture of how different groups of students are performing. Law prohibits NAEP from asking about personal or family beliefs and attitudes.

How long does the NAEP assessment take? From beginning to end, NAEP assessments usually take less than 90 minutes. This includes setting up, taking the assessment, and getting back to instructional activities. However, the time may vary depending upon the type of assessment and whether special accommodations are necessary.

Will my child's teacher spend class time helping students get ready for NAEP? Since there are no scores for individual students or schools, special preparation to help students practice is not necessary or expected for any NAEP assessment.

Who gives NAEP to my child? About 5,000 NAEP administrators, many of whom are retired teachers, will administer the assessment nationwide in 2005. All undergo rigorous security clearances and are trained in confidentiality and security procedures. All teachers are encouraged to remain with their students during the testing period.

Will my child's answers be kept confidential? The assessment is confidential and students' names are physically removed from the booklets and never associated with a test score once the assessments are completed. It is against federal law to identify any student participating in NAEP, and severe penalties will be imposed on anyone revealing the identity of the children taking NAEP. In its 30-year history, that security has never been broken.

Will the NAEP assessment affect my child's grade? NAEP does not calculate individual students' scores, so your child's grade is not affected by the assessment.

Will I get to see the results of my child's test? Since NAEP combines all student responses to report overall results for the nation, states, and groups of students, there are no individual student results available.

What are the benefits of participating in a NAEP assessment? The results of NAEP assessments can help guide educators and policymakers at the local, state, and national levels in their decisions about education to ensure that children are receiving the best education possible.

What will participation in a NAEP assessment mean for my child? Participating in a NAEP assessment helps to sharpen test-taking skills by providing students with an opportunity to practice answering challenging questions in a low-stress environment. Also, each NAEP assessment will undoubtedly introduce your child to some new information, which makes taking the assessment a learning experience.

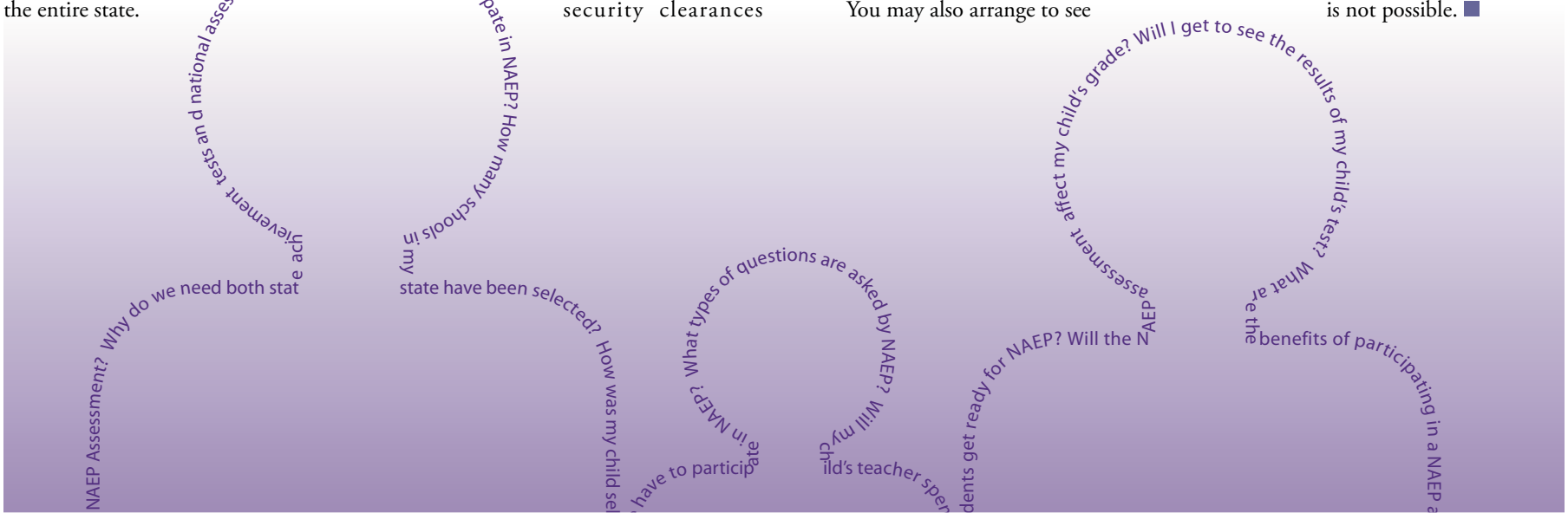
Where can I see the assessment that my child will take? Demonstration booklets containing sample test questions and all background questions are available on the NAEP website, http://nces.ed.gov/nationsreportcard/about/booklets.asp, and in your child's school. In addition, more than a thousand released NAEP questions are on the NAEP website under the easy-to-use NAEP Questions Tool.

You may also arrange to see the actual test questions on this year's assessment that have not yet been made public by contacting your NAEP State Coordinator. This person's name can be found through your state's profile provided by the Nation's Report Card at http://nces.ed.gov.nationsreportcard/states. Or you may send a written request to the National Assessment Governing Board (NAGB) by email at NAGB@ed.gov.

Is my child with disabilities allowed to participate in NAEP? The decision to include students with disabilities in NAEP assessments is made by school personnel who decide whether students can meaningfully be assessed with or without accommodations based on information in a student's Individualized Education Program (IEP). Special needs students use the same accommodations in NAEP assessments that they use in their usual classroom testing unless the accommodation makes it impossible to measure the ability, skill, or proficiency being assessed or the accommodation is not possible for the NAEP program to administer. Some of the most common NAEP accommodations for students with disabilities are large-print books, extended time, small group or one-on-one testing, oral reading of directions, and use of an aide for transcribing responses.

English is not my child's native language. Will he/she be able to take part in NAEP? As NAEP tries to be as inclusive as possible, your child will probably be able to participate. Children who have received academic instruction in English for three years or more (including the present year) are expected to participate in NAEP if selected. Students with fewer than three years of English instruction should also participate in NAEP if selected, unless their school decides they are incapable of participating in the assessment in English. Sometimes accommodations are allowed for students classified as limited English proficient (LEP), such as extended time to answer assessment questions.

May my child take NAEP if he/she was not selected? No. Through a careful process, NAEP selects the smallest number of students necessary to represent your state fairly and accurately while minimizing its administrative work. Additional student participation is not possible. ■



Special Needs

Continued from page 1

- The student's IEP team determines that the student cannot participate.
- The student's cognitive functioning is impaired so severely that he or she cannot participate.
- The student's IEP requires that the student has to be tested with an accommodation or adaptation that NAEP does not allow. (See the list of NAEP accommodations below.)

All LEP students who have received academic instruction in English for three years or more, including the current year, are to be included in assessments without accomodations if selected. Those LEP students who have received instruction in English for fewer than three years are to be included, if selected, unless school staff members judge them to be incapable of participating in the assessment even with the accommodation permitted by NAEP.

All special needs students may use the same accommodations in NAEP assessments that they use in their usual achievement testing or unless the accommodation would make it impossible to measure the ability, skill, or proficiency being assessed or the accommodation is not possible for the NAEP program to administer. For instance, in the reading assessment, reading the passage and questions aloud to a student is not permitted because the NAEP assessment is intended to measure the student's ability to decode the written word, as well as to comprehend the meaning of the passage. Also, extending testing over several days is not allowed by NAEP because NAEP administrators are in each school for only one day.

Some of the accommodations that are permitted by NAEP are: extra time, testing in small-group or one-on-one sessions, and scribing a student's responses. For a more complete list of accomodations, see the table below. ■

Examples of Assessments Permitted by NAEP

Accommodation	Permitted
Presentation Format	
Explanation of directions	Yes
Oral reading in English	Yes (except for reading)
Oral reading in native language	No
Person familiar to student administers test	Yes
Translation of directions into native language	No
Translation of test into native language	No
Bilingual (Spanish) version of test	Yes (mathematics only)
Repeat directions	Yes
Large print	Yes
Bilingual dictionary	Yes (except for reading)
Setting Format	
Alone in study carrel	Yes
Administer test in separate room	Yes
With small groups	Yes
Preferential seating	Yes
Special lighting	Yes
Special furniture	Yes
Timing/Scheduling	
Extended testing time (same day)	Yes
More breaks	Yes
Extending sessions over multiple days	No
Response Format	
Braille writers	Yes
Word processors or similar assistive devices	Yes
Write directly in test booklet	Yes
Tape recorders	No
Scribes	Yes
Answer orally, point, or sign an answer	Yes
One-on-one administration	Yes
A Sample of Other Accommodations that may be provided for State Assessment but not for NAEP	
Braille edition of assessment	No*
Audiotape administration of assessment	No
Calculator	No
Abacus	No
Arithmetic tables	No
Graph paper	No
Responses in native primary language	No
Thesaurus	No
Spelling and grammar checking software and devices	No
Signing directions or answers	No*

This list is not exhaustive. Other accommodations will be considered by NAEP if and when they arise.

* Not provided by NAEP, but school, district, or state may provide after fulfilling NAEP security requirements.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (NCES), National Assessment of Educational Progress (NAEP) 2003 Reading and Mathematics Assessments.

Including Students with Disabilities in Assessment

By Mark Walker

Observing Shanita

When Shanita was young, she was diagnosed as having a "learning problem." She was also said to be suffering from an "emotional disturbance." When she arrived in my classroom—a resource room as part of the special education department in a low-performing high school in Washington, DC—both disabilities were apparent. She had been defined as "a problem child" and exhibited numerous "stemming" or comforting rituals to maintain self-care—rhythmic actions, like rocking or opening and closing her hands. This was how she coped with what she understood as her hostile learning environment, and this behavior had been going on throughout her school life. No one had been able to help her or wanted to work with her anymore. She was labeled autistic and a loner, everything but a student. I was told she had no real language abilities and was unable to read. When she spoke—the few times she did—she stuttered, badly, and had a difficult time getting her words out. She had no apparent confidence or connection with her environment or with the kids around her. She changed schools often, ended up repeating her grades or being partially held back, and eventually she became disillusioned with it all.

As a result of this background, Shanita did not come into my classroom willingly, but came disengaged and without much hope, hardly raising her head to see through the door. She would not make eye contact with anyone during the first week of school and simply sat at a desk in the back of the room, rocking and twirling her pencil. I was told "not to bother her," just to "ignore her, and she'll be okay." At first, the other students in the room stared at her, but quickly they learned to ignore her and move on to their own work. She became part of the décor, more like an object than a person.

This was not good enough for me. I had to know how to reach her, and so I began a slow process of trying to engage her to find out the true nature of her abilities and deficiencies and where I needed to begin to work. I sat by her at a round table, without drawing attention to her, as I did my paperwork and interacted with the other students. Slowly, over time, as she sat and listened to the interaction, she began to speak up, commenting on what was being said or done. During the second week, she became fixated on the hair on my arm. After asking a couple of questions as to why I had so much on my arm and where it came from, she did the most beautiful thing I could have imagined—she reached out and touched my arm, rolling the hair between her fingers. There was contact. This seemed to bring her joy (it certainly did for me) and caused a pause in her rocking; she had found a new form of comfort.

Over time, I was able to put work in front of her, and I discovered that she not only could hold her pencil still, she could put it to work. As I increased the level of her language assignments, I found, to my surprise, she could do the work successfully. Step by step I increased the difficulty, and step by step Shanita met the task. I found her to not only be on grade level, but one grade above. She was in the ninth grade and could read at the tenth. Shanita was reading at the highest level in the room.

What I've Learned

Some tests come in different forms

One of our country's greatest passions is education. We care about our children, and we care for our—strike that—we care for *their* future. It doesn't matter much what else is before us. Mention schools or education or kids and you have everyone's attention. Whatever the personal experience, everyone is vested in the topic, and everyone, it seems, has a strong opinion on it.

Which brings us to testing. It's the national "topic of the moment," considered either a massive reform movement, critically important, a huge tragedy, about time, or a distraction from what is actually necessary. *No Child Left Behind* has certainly not left the adults behind. Depending on where you stand and what your perspective is, people see what they want to see. In other words, testing is not defined by the recipient, but by the critic—by the person looking in from the outside. The question is: What do you see? And, more to the point: Should those with different learning abilities be tested differently?

These were certainly my questions before I met Shanita. I dreaded assessment day. The majority of the students I work

See Including Students *on page* 9

National Assessment of Educational Progress Schedule of Assessment

Year	National Assessments 4th, 8th, and 12th grades	State Assessments 4th and 8th grades
2002	Reading Writing	Reading Writing
2003	Reading (4th & 8th grades only) Mathematics (4th & 8th grades only)	Reading Mathematics
2004	Long-term trend	
2005	Reading Mathematics Science	Reading Mathematics Science
2006	U. S. History Economics (12th grade only) Civics	
2007	Reading (4th & 8th grades only) Mathematics (4th & 8th grades only) Writing (8th & 12th grades only)	Reading Mathematics Writing (8th grade only)
2008	Arts (8th grade only) Long-term trend	
2009	Reading Mathematics Science	Reading Mathematics Science
2010	World History (12th grade only) Geography	
2011	Reading (4th and 8th grades only) Mathematics (4th and 8th grades only) Writing	Reading Mathematics Writing
2012	Civics Foreign Language (12th grade only) Long-term trend	

The Role of Teachers in Assessment

Research and personal knowledge tell us how important individual teachers are and what an impact they have on student achievement. The individual teacher sets the tone for a classroom and thereby controls attitudes toward learning, testing, and student participation. Knowing this, teachers need to be cognizant of how their own behavior may affect student success in any task, including assessment. Because of their potential influence, teachers should remember some important points when it comes to testing.

- A positive attitude towards assessment, including the NAEP assessment, is one of the most effective tools you can use to prepare students for testing.
- Be knowledgeable concerning the importance of each test, including NAEP. Let students know what is expected of them in each testing situation.
- Understand the connection between instruction and assessment, and provide students with opportunities to assess their own work.
- Participation in a good assessment, such as NAEP, is a learning experience in itself. Share with students that good assessment teaches them to think clearly and deeply.
- Open-ended and performance questions increase a student's ability to synthesize ideas and respond in testing situations. Incorporate these types of questions into your everyday instruction.

A positive or negative message can affect the outcome of any assessment. Students are extremely perceptive and will pick up both verbal and nonverbal cues from their teachers and from other students. When preparing for an assessment consider these incidental benefits.

- Assessments do consume classroom time – but – assessments can provide valuable learning experiences.
- Not all assessments provide individual scores – but – assessments that do give individual scores can be valuable learning tools, like the SATs.
- Teachers may dread standardized assessments – but – if students have learned to do grade-appropriate critical thinking they will do well and may end up feeling proud of themselves.
- NAEP does not provide individual or even school scores – but – the students selected represent millions of students across the nation, and that is a heady opportunity.

Finally, a positive attitude on the part of teachers and students can easily add a few points to the assessment outcome. ■

In 2003, fourth-graders in three countries—Chinese Taipei, Japan, and Singapore—outperformed U.S. fourth-graders in both mathematics and science, while students in 13 countries turned in lower average mathematics and science scores than U.S. students.

Trends in International Mathematics and Science Study (TIMSS) 2003

Big Assessments are Big Science

by Eric Zilbert

A large-scale assessment like the National Assessment of Educational Progress (NAEP) is a big science project. It requires the cooperation of hundreds of scientists, thousands of workers, and the willing participation of tens of thousands of students.

As with any large science project, NAEP assessments are carefully planned years in advance. The primary goal of NAEP is to help us better understand what American students know and can do in a variety of subject areas.

e development of new testing procedures, scaling techniques, and sampling techniques, as well as improved approaches to analyzing items and reporting data, have all evolved through NAEP assessments.

Trends tracked by the long-term trend assessment have not only given us a picture of national achievement in reading and mathematics, they have helped to demonstrate the significant gaps in performance nationwide among students of various ethnicities and socioeconomic backgrounds. NAEP also collects information that demonstrates how certain activities may be related to cognitive development, such as the relationship between watching television and reading scores.

In contrast to the national assessments, the state NAEP assessments either help to provide independent confirmation of or bring into question the results on assessments administered by each state.

One of the by-products of any science project is the development of new materials and technologies. The field of test development, known as psychometrics, has benefited significantly from innovations initiated by NAEP. The development of new testing procedures, scaling techniques, and sampling techniques, as well as improved approaches to analyzing items and reporting data, have all evolved through NAEP assessments.

NAEP has also provided a wealth of information on music education, theater arts, history, and science. One need only turn to public policy research to find numerous references to NAEP as an independent measure of student progress in a variety of areas.

NAEP is big science, but its ability to report accurate results and its success in the field of psychometrics rests on the shoulders of schools and students selected to participate in the national and state assessments. Their full cooperation is the linchpin to understanding the science of education in America. ■

Eric Zilbert is an Educational Research and Evaluation Specialist in the California Department of Education and serves as the NAEP State Coordinator for California. Dr. Zilbert has been with the department of education since April of 2001. During the previous 10 years, Dr. Zilbert was a teacher educator at the University of California at Davis where he taught courses in curriculum development, program planning, research methods, and multivariate statistics. His research interests include earnings and employment effects of education, particularly the impact of mathematics and science instruction on disadvantaged students.

Test Score Improvement: One District's Success Story

West Feliciana Parish is a small, rural school district located in Louisiana on the banks of the Mississippi River. It has one of the lowest adult literacy rates and the second highest poverty rate for children under five in the state. Although 50 percent of school children are eligible to receive free and/or reduced lunch, the student population includes children from some of the wealthiest families in the state. The district also has one of the highest rates of single mother and teen mother families.

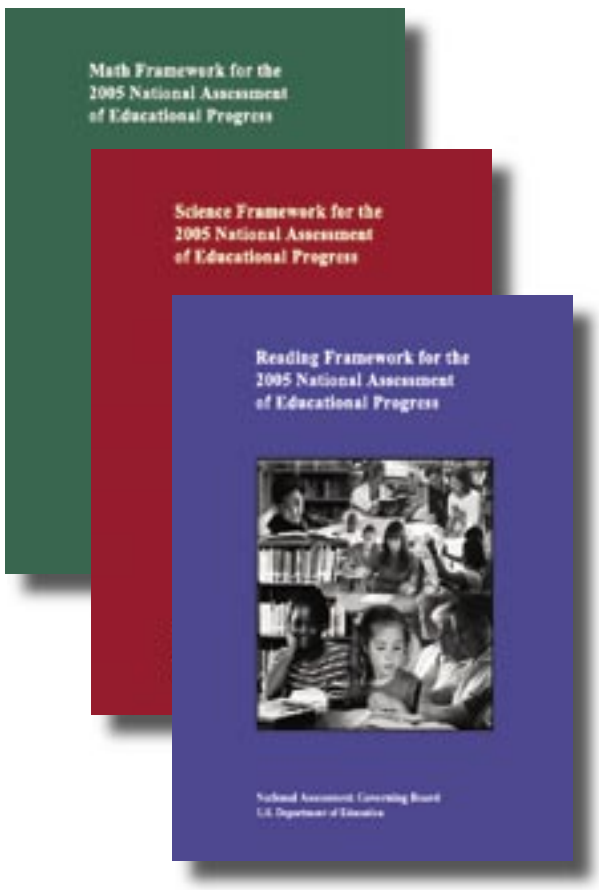
Three elementary schools, one middle school, and one high school serve the approximately 2,500 school-age children in the district, of which 47 percent are minority. Ninty-seven percent of the school-age population attends public schools. There are no private or parochial schools located in West Feliciana Parish. The 13 percent special education population is served through a full inclusion model used by all schools. The graduation rate for special education students is 89 percent compared to only 21 percent for the state.

Early childhood education is an integral part of the school system, beginning with the Family Service Center offering health services for children as young as six months of age. Early Head Start and Head Start offer high quality school experiences for many students, birth to three years of age. Pre-K classes have been available to all four-year-olds in the parish for over fifteen years.

Throughout the school system, major decisions are made with the benefit of learners in mind. School climates are positive and professional, empowering teachers to do their best and work as a team. District-wide curriculum reflects national and state standards. Instruction requires students to be active, critical thinkers and reflective in their own learning. Classrooms are well equipped with resources and materials needed for effective instruction. Technological support is excellent. Computers and laptops are readily available in classrooms, and there are specialized computer labs in each building.

Then…

By the late 1980's it was obvious that West Feliciana Parish students were lagging behind the state and nation in academic achievement. For example, in 1988, 38.7 percent of 6th graders and 25.5 percent of 9th graders scored in the bottom quartile on the California Achievement Test (CAT), while only 7.2 percent scored in the top quartile. At the same time, the average ACT scores were below the state and national average. Recognizing that something had to be done to stop the decline and to begin moving students toward



academic excellence, newly appointed superintendent Lloyd Lindsey, Jr. initiated sweeping reforms. By placing emphasis on high expectations, critical thinking skills, and a coordinated curriculum embracing rigor and relevance, Lindsey formulated a plan to raise student achievement on state and national assessments to exceed the national average.

One of the initial pieces in this plan was to introduce NAEP frameworks and to educate faculty and staff on testing strategies and formats based on these frameworks. Teachers and principals were instructed to review NAEP assessments and to incorporate the model into their everyday teaching and testing.

The district's initiative to improve student achievement paralleled the state's accountability program. Fortunately for the district, Louisiana adopted a state accountability model, the Louisiana Educational Assessment Program (LEAP), which mirrored NAEP-like assessments. Because of its prior emphasis on NAEP, the school district was able to make a rather smooth transition to a more rigorous standard of assessment.

Moving students from below the state and national average to above was not an easy task, but a goal that was deemed necessary and one that was embraced by the entire school family. Some of the ways in which this was achieved included: (1) The curriculum framework was fashioned on NAEP standards, and LEAP requirements were mapped to those standards; (2) Teachers changed the way they taught by providing students with multi-step mathematics problems, using open-response items in all disciplines, writing across the curriculum, administering open-book tests, requiring journal writing, and using bell-ringers to open every class; and (3) Teachers challenged students to problem-solve and to think critically in ways they had not done before.

Now…

Student scores on national assessments show steady improvement and reflect a reversal in performance from the 1988 results. The state and district switched from administering the CAT to the Iowa Test of Basic Skills, a more difficult assessment. By 2002, the percentage of students in the bottom quartile in the 6th grade shrank to 7.1 percent while the percentage in the top quartile grew to 37.6 percent. In the 9th grade, 13.9 percent of the students scored in the bottom quartile and 29.9 percent scored in the top quartile, with each school's average score at or above the 60th percentile.

ACT scores also reflected this improvement. The average score for the graduating class of 2004 was 21.6 (tied for first in the state), the state average was 19.8, and the national average was 20.9.

The district believes that implementing a NAEP-like framework into its curriculum and instruction, and its commitment to student achievement, made it a better system. The words of Superintendent Lindsey reflect this sentiment. "As a superintendent involved in state accountability, I've seen some states wrestle with implementing NAEP assessments and frameworks across the board. Louisiana has a very tough standard. We've risen to the standard and our students have risen to the expectations. I think we're better as a state and as a local school system for it." ■

This article was written by a group of teachers and administrators from West Feliciana Parish in St. Francisville, Louisiana. Lloyd Lindsey, Jr. has been superintendent of the parish for the last 12 years and was honored as the Louisiana Superintendent of the Year in 2004. The West Feliciana Parish School System is recognized across the state as a leader in student achievement, inclusion education, health education, and developmentally appropriate early childhood practices.

Resources to Help Answer Parents' Questions about NAEP Assessments

It is important for parents to be knowledgeable about the NAEP assessment if their child is to participate in the testing. They should feel comfortable addressing any questions their child may have about taking the test and in preparing their child for test day. You can help to equip parents for this role and obtain valuable information in the process through a variety of resources.

- Information about the NAEP assessment is available on the NAEP website at http://nces.ed.gov/nationsreportcard/, which is updated frequently. A valuable tool located on this site is the NAEP Questions Tool. Teachers and parents can see actual sections of a completed NAEP assessment, view student responses to items, and examine the scoring of items. For more information on scoring, open the NAEP Data Tool, which provides tables of detailed results from NAEP's national and state assessments.

- Questions parents frequently ask are answered in the outreach brochure, *The Nation's Report Card: Parents' Guide to NAEP*. This brochure addresses parents' concerns and provides them with contact information if they have further questions. Copies may be obtained online at http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003480. (A sampling of questions and answers can be found on page 3 of this publication.)

- Demonstration booklets are available to provide insight as to what teachers and parents can expect from the assessment. The demonstration booklets contain many of the components found in the actual test booklets, including instructions, sample subject area questions from previous NAEP assessments, and background questions. Teachers should contact their NAEP School Coordinator to request these booklets. They are also available online at http://nces.ed.gov/nationsreportcard/about/booklets.asp.

- NAEP welcomes suggestions. Comments can be made through the NAEP website at http://nces.ed.gov/nationsreportcard/contactus.asp or by contacting your NAEP State Cordinator. The names of NAEP State Coordinators can be found at http://nces.ed.gov/nationsreportcard/states or by calling (202) 502-7420. ■

The reading framework for the 2005 National Assessment of Educational Progress describes the content and format of the 4th, 8th, and 12th grade assessments. The NAEP reading framework specifies three contexts for reading: reading for literary experience, reading for information, and reading to perform a task.

Contexts for Reading Specified in the NAEP Reading Framework

Context for Reading	Description
Reading for literary experience	Readers explore events, characters, themes, settings, plots, actions, and the language of literary works by reading novels, short stories, poems, plays, legends, biographies, myths, and folktales.
Reading for information	Readers gain information to understand the world by reading materials such as magazines, newspapers, textbooks, essays, and speeches.
Reading to perform a task	Readers apply what they learn from reading materials such as bus or train schedules, directions for repairs or games, classroom procedures, tax forms (grade 12), maps, and so on.

The framework also specifies four aspects of reading that characterize the ways that readers respond to text: forming a general understanding, developing interpretation, making reader/text connections, and examining content and structure.

Sample NAEP Questions and Reading Strategies

	Aspects of Reading			
Context for Reading	Forming a General Understanding	Developing Interpretation	Making Reader/Text Connections	Examining Content and Structure
	Consider text in its entirety ↓ Understanding in a broad way	Focus on specific parts ↓ Linking information across parts of the text	Think beyond the text ↓ Applying the text to real-world situations	Consider why and how the text was developed ↓ Considering the content, organization, and form
Reading for literary experience	What is the story/plot about? ▪ Synthesis ▪ Analysis ▪ Inference	How did this character change from the beginning to the end of the story? ▪ Synthesis ▪ Analysis ▪ Inference ▪ Using details	What other character that you have read about had a similar problem? ▪ Analogy ▪ Synthesis ▪ Using details ▪ Relating information and ideas	What is the mood of this story, and how does the author use the language to achieve it? ▪ Using details ▪ Inference ▪ Analysis ▪ Synthesis ▪ Search
Reading for information	What point is the author making about this topic? ▪ Generalization ▪ Using details ▪ Synthesis	What caused this change? ▪ Cause and effect ▪ Inference ▪ Search	What other event in history or recent news is similar to this one? ▪ Analogy ▪ Synthesis ▪ Analysis ▪ Inference ▪ Using details ▪ Relating information and ideas	Is this author biased? Support your answer with information about this article. ▪ Synthesis ▪ Analysis ▪ Judgment ▪ Inference ▪ Using details ▪ Determining fact and opinion
Reading to perform a task	What time can you get a nonstop flight to X? ▪ Search	What must you do before step 3? ▪ Search ▪ Inference ▪ Sequence	Describe a situation in which you would omit step 5. ▪ Inference ▪ Analysis ▪ Using details ▪ Relating information and ideas	Is the information in this brochure easy to use? ▪ Evaluation ▪ Using details ▪ Synthesis ▪ Search

Detailed information on sample questions and results can be found on the NAEP website at nces.ed.gov/nationsreportcard.
Source: "Reading Framework for the 2005 National Assessment of Educational Progress."

Frameworks

Continued from page 1

A NAEP framework also contains the rationale behind the assessment, specifications for the assessment, sample items, scoring rubrics for open-ended questions, and descriptions of the achievement levels.

The National Assessment Governing Board (NAGB), a board that facilitates and oversees the policy for all aspects of NAEP, directs the development of the NAEP frameworks. Three other important groups, however, share in the actual development of a framework.

The first is the planning committee, composed of experts in the given academic area to be tested. This committee creates an outline and establishes the goals for a particular framework.

Another important group is the steering committee, composed of policymakers, members of national organizations, and the general public. This committee responds to the work done by the planning committee and offers feedback on the development of the proposed framework.

A third group is made up of teachers, state education officials, and other knowledgeable people who review the revised documents. Their comments help to further reshape the framework.

Throughout the entire development process, the NAGB Board examines the proposed frameworks document until it is finally adopted.

Each NAEP assessment is based on a subject-area framework that is updated periodically. Being familiar with the NAEP frameworks provides teachers with background knowledge as well as specific information to enhance their understanding in various assessments. For more information or to download a copy of a framework, go to http://nces.ed.gov/nationsreportcard/frameworks.asp. ■

PTA: Let's Talk About Assessment

As the ultimate conduit between parents and teachers, the Parent Teacher Association can work in your favor to ensure that parents receive the information they need to understand the purpose and importance of a successful NAEP assessment.

Prior to each NAEP assessment, the NAEP State Coordinator provides your school with a parent notification letter, which may be signed by your school principal. This letter informs parents about the purpose of the NAEP process and how their child's participation fits into a confidential sampling. The letter also provides further sources of information about NAEP.

The PTA can greatly help the NAEP School Coordinator in promoting an understanding of NAEP by taking the lead in introducing parents to current information on the NAEP website through letters and meetings. Working with their NAEP School Coordinator, the PTA can also host a NAEP presentation at a scheduled meeting or present specific NAEP workshops for 4th grade parents. It may be advantageous to invite the NAEP State Coordinator, Supervisor, Assessment Administrator, or Assessment Coordinator to work with your NAEP School Coordinator to lead this PTA meeting or workshop.

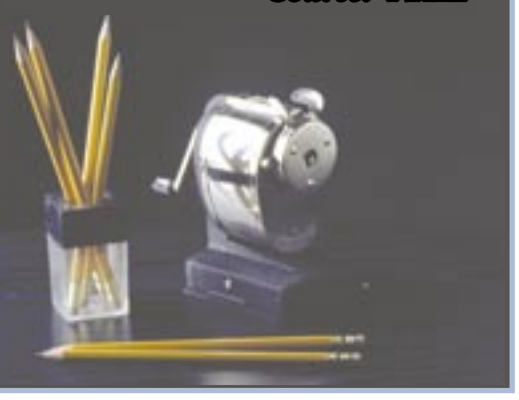
However your school decides to disseminate information to parents about an upcoming NAEP assessment, it is a good idea to keep your PTA involved in the process. ■

Sample Agenda of a PTA Presentation of NAEP

PTA Meeting Prior to School's Involvement in NAEP Assessment	
15 min.	Introduction to NAEP ▪ Give a short presentation of NAEP's purpose, history, and philosophy. ▪ Provide a brief summary of the roles and responsibilities of the NAEP School Coordinator and the NAEP State Coordinator. ▪ Project the NAEP website (using computer and LCD panel), highlighting where to find information. ▪ Share important web addresses with parents, such as *Parents' Frequently Asked Questions* at http://nces.ed.gov/nationsreportcard/parents/faq.asp#sec2 and *The Nation's Report Card: Parents' Guide to NAEP* at http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003480
20 min. or longer	▪ Distribute and discuss demonstration booklets that contain background questionnaires and subject-area questions for 4th graders. The booklets can be found in PDF format at http://nces.ed.gov/nationsreportcard/about/booklets.asp ▪ Share NAEP data for your particular state, including snapshot reports of participation and performance. State profiles and contact information for the NAEP State Coordinator can be found at http://nces.ed.gov/nationsreportcard/states/ ▪ For teachers and parents interested in seeing actual items and performance data of a completed NAEP assessment, they need only turn to the NAEP Questions Tool at http://nces.ed.gov/nationsreportcard/itmrls/pickone.asp
20 min.	Allow for questions and answers.
5 min.	Wrap-up. Discuss the benefits of good assessment on student learning. Distribute handouts (letter to parents, printouts from website, etc.) and contact information for your NAEP School Coordinator and the NAEP State Coordinator.

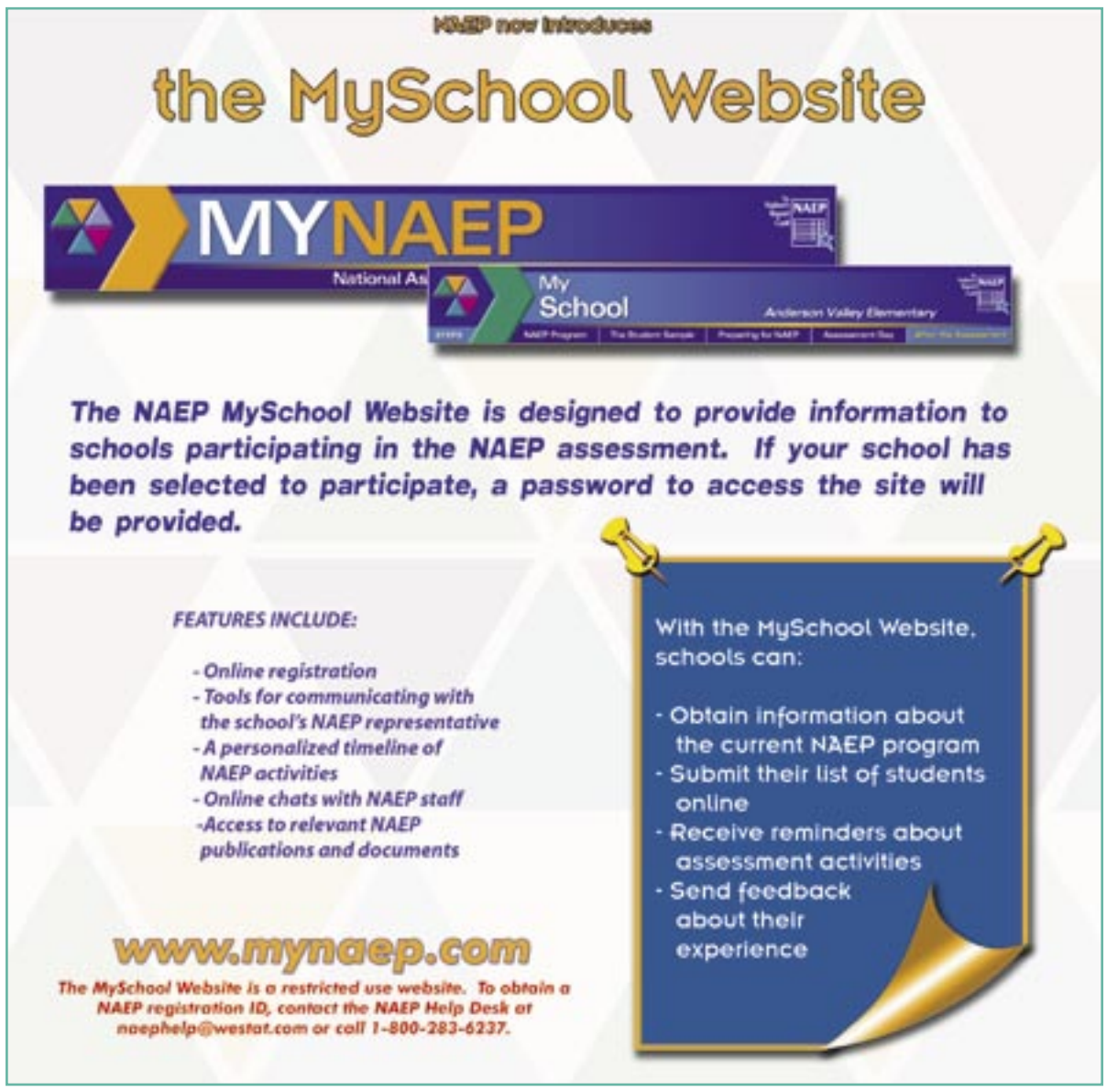
The percentage of 4th graders at or above the Proficient level on the NAEP writing assessment rose 5% between 1998 and 2002.

Source: NAEP



"…reading is an act of liberation. It breaks the bonds of ignorance, frees the mind, enlarges our intellectual horizons, and enhances our personal growth."

U.S. Secretary of Education, Rod Paige, 2004



The National Assessment of Educational Progress is known as NAEP and is often called "The Nation's Report Card."

The Nation's Report Card NAEP

Including Students

Continued from page 4

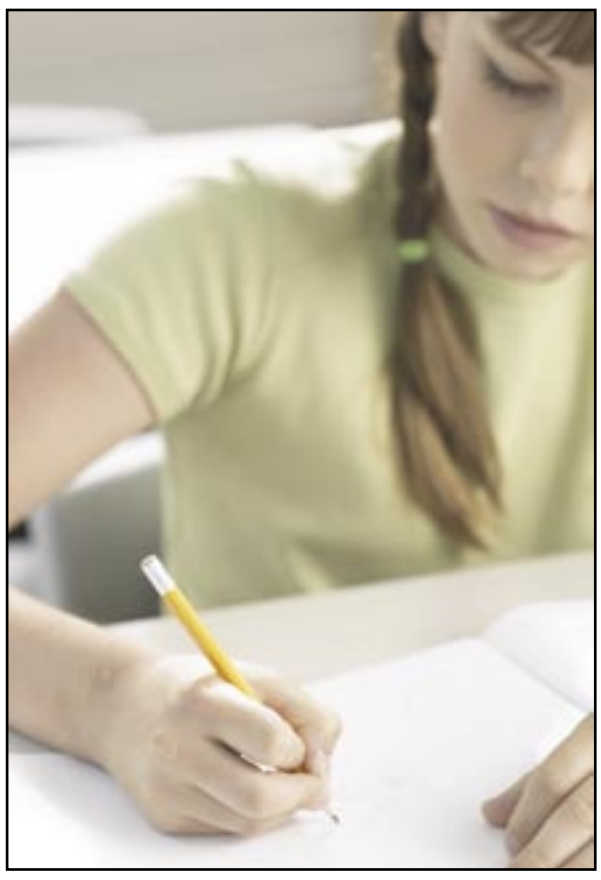
with usually do not perform well. They either avoid the test altogether by not coming to school on that day or race through the questions in a perfunctory manner. They don't care. They don't score well. But Shanita took the test seriously and showed her language prowess. She was awesome. She found her place, and she totally changed my opinions about testing.

Three Key Outcomes of Testing

Children have the right to appropriate public education and the right to know where they stand. This is what the standardized tests provide. Working with students with disabilities and having gone through a few rounds of testing has made this clear to me.

Experience brings three guiding principals to mind.

- The Truth—There's no guesswork. Testing gives us the truth about each student's abilities in reading and mathematics. Whether students score well or not, they participate, and from the results teachers learn how much work is still ahead.
- Full Integration—In having all students take the standardized tests, integration is accomplished for all students, including those with disabilities. This fulfills the stated goal of the Principle of the Least Restrictive Environment: every student has the right to be educated with his or her peers.
- Normalization—Though many students with learning disabilities have a difficult time with standardized tests, they still desire to be part of the process, to belong, and to have a normal school experience. Every child is different, but it is normal to be different. There are no standardized people.



Testing Is Important

The NCLB act significantly strengthens the federal government's role in elementary and secondary education, guaranteeing the quality of public education for all children in the United States—all of them. The signal feature of the new act is this focus on accountability and results aimed at raising academic achievement for all students while improving the performance of poorly performing schools.

Research has shown that a proper focus on assessment increases the abilities of those being tested. It only makes sense. Test practice and test taking bring about better scores, but more significantly, they bring out what is hidden within the child. There is much to debate over NCLB's testing and accountability provisions. Much of it centers on such concerns as whether states will maintain control over their own standards and tests, how the new mandates will be funded, how test results will be reported, where the bar will be set for defining proficiency and adequate progress, how schools will be held accountable, and whether states' test scores will be compared against an independent national benchmark, the National Assessment of Educational Progress (NAEP).

But for me, there is no debate. Shanita showed me the way, and the tests helped us all to see what skills she actually possessed. Testing is not the enemy; it is the way to discover what is hidden inside, for the teacher as well as for the student. ■

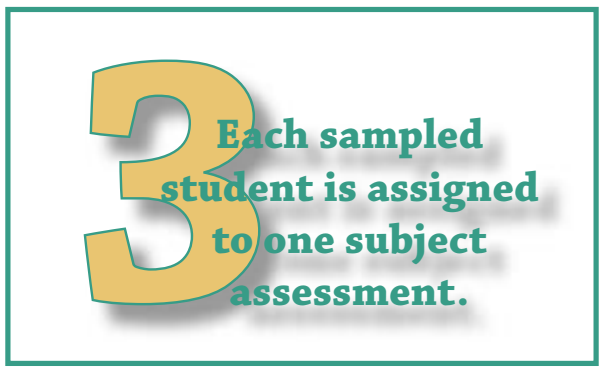
Mark Walker is an Associate Professor of Special Education at George Washington University in Washington, D.C. His primary subjects include behavioral management, child development, family support and guidance, methods and materials for children with disabilities, and differentiated instruction. Mr. Walker has taught in two of the lowest performing schools in the District of Columbia, serving over 120 students with a wide variety of disabilities.

Sampling in NAEP

Continued from page 1

diverse with respect to each of these characteristics than other states. The second is to ensure that the resulting sample of students contains a representative cross-section of the student population within the state. It is important to remember that NAEP samples schools merely as a vehicle to obtaining a representative sample of students.

This approach to sampling schools has two consequences that sometimes lead schools to ask why they are (or are not) included in the school sample for a given NAEP assessment. The first is that the school sample is not based on districts. NAEP does not sample districts or seek to ensure that every district in the state has a school in the sample. However, it is likely that a broad cross-section of districts will be represented in the sample. The second consequence is that larger schools within a state have a better chance of being selected than smaller schools. The final selection needs to contain the right balance of students from large schools and students from small schools. This in turn means that the larger schools in many small- and medium-sized states are frequently selected to participate in NAEP while smaller schools are selected only intermittently.



The student sampling procedure is designed to be straightforward. First, a list of the students in the selected grade from participating schools is obtained. This list contains all students, not just those from certain classes. In the 2005 assessments, the school sample will usually include all students on the list. The cap, however, is set at 90. If the school has more than 90 students in the target grade, a sample of 90 students will be selected from the student list.

Students are selected systematically from a list, beginning with a random start. Consider, for example, the task of selecting a sample of 90 students from a school with 270 grade 8 students. Every third student on the student list will be included in the sample, with a random designation as to whether the selection begins with the first, second, or third student on the list. All students have an equal chance of being selected, and the sample is not targeted towards any particular subgroup of students. The result of this process is that the final student sample is broadly representative of the state's student population as a whole. Those social and demographic subgroups that are common within the state will be heavily represented in the student sample, while those that are rare will be sparsely represented. No groups are excluded from representation in the sample.

The final step in sampling involves assigning the sampled students to a particular NAEP assessment. Consider the case of a school, in 2005, where 90 of its students are selected to participate in the reading, mathematics, and science assessments. In most cases, 30 different students will be assessed in each of the designated subject areas. Assessment booklets are ordered and then assigned to the students in the order in which they are listed. Thus every third student on the list will be assigned to the reading assessment. Again, the starting point is random, so the first student selected is equally likely to be assessed in reading, mathematics, or science.

NAEP's sampling procedures are designed to be straightforward and foolproof to implement, with the sole objective being that a representative sample of students results. All the principles of a scientific sampling are applied to ensure that an accurate profile of the student population is obtained. The final component is full participation by the selected schools and students, without which no sample can adequately represent the population. ■

Keith Rust is Vice President and Associate Director in the Statistical Group at Westat, a contract research organization based in Rockville, MD. He has worked on statistical operations for NAEP since 1987. He is also Research Professor of the Joint Program in Survey Methodology at the University of Maryland and a Fellow of the American Statistical Association. His primary area of research interest is variance estimation for complex surveys.

Helping Students Complete the Assessment Picture

By Rena Mincks

I recently had the opportunity to interview students regarding their perceptions of the results of large-scale, high stakes testing. It occurred to me through the course of the interviews that many students see classroom work as one thing and testing as something entirely different. It is obvious that we teachers must give additional attention to clarifying for students the purpose of testing, whether it is the day-to-day classroom-based tests or the large-scale high stakes tests, and begin to help them develop strategies for success.

It is vital for students to have a clear understanding of what is expected of them in their everyday learning and in assessment situations. Clarification is key to success because it narrows the randomness and inefficiency of trial-and-error learning. It is the teacher's responsibility to provide students with clear requirements, feedback on the quality of their efforts, and opportunities to practice what they've learned before they are tested.

To prepare students for any type of assessment, it is important that teachers understand the individual strengths and weaknesses of each child. This knowledge can be obtained through various diagnoses of student work in all academic areas and by careful teacher observation of students' abilities. Once teachers have identified their students' strengths and weaknesses, they must share their findings with those students so that they can monitor their own performance.

We, as teachers, must continually practice good classroom pedagogy and present students with testing situations that help them probe, think, and learn at all stages of their academic work. To do this, we should start with examples of open-ended responses and essay questions that can be read aloud to students. Answers can then be discussed in a group so that students have an idea of the level of expectation we have for them. Samples of these questions and responses can be taken from NAEP demonstration booklets found on the NAEP website at http://nces.ed.gov/nationsreportcard/about/booklets.asp.

After teachers have worked with models of superior achievement, it is time to speak to students about rubrics and scoring guides. Teachers should take the time to communicate, purposefully and intentionally, what it is that students need to know, what a quality product should look like, and what steps are necessary in the test-taking process. Students can then begin to see what qualities are needed to achieve a proficient or advanced score on their own work. In time, students can work in conjunction with teachers to develop classroom rubrics.

The goal is to help students perform on large-scale assessments just as they would on any given classroom assignment. Our purpose is not to show them how to pass tests, but to teach them to take responsibility for their learning. When students feel in control of their education, they are more likely to care about and strive for success. ■

Rena Mincks has been a teacher for seventeen years. She currently teaches first grade in Pullman, Washington. She is also a doctoral student at Washington State University and an adjunct professor in Assessment of Student Learning.

The Importance of Open-Ended Discussion Statements

By Marilyn Whirry

As teachers continue to examine and access the various frameworks available from NAEP, they will notice samples of open-ended assessment items to which students are asked to respond. Modeling these questions in classroom exercises can be a great help to students. To make certain that a student can respond easily, thoroughly, and with a certain amount of depth, it is wise to practice open-ended questions—not only as written responses, but as oral responses as well.

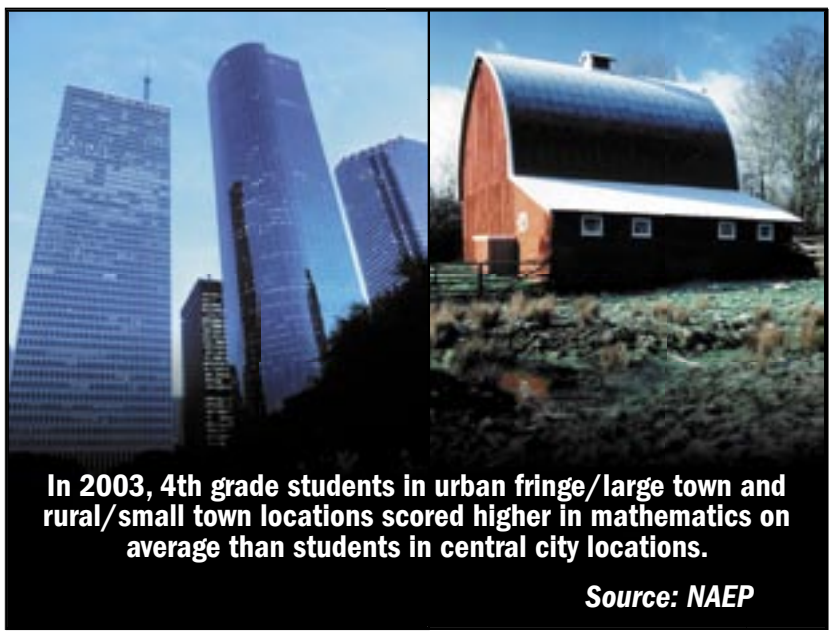
A good way to prepare students to respond in writing to open-ended items is to allow them to practice oral responses in the classroom through large and small group discussions.

A good way to prepare students to respond in writing to open-ended items is to allow them to practice oral responses in the classroom through large and small group discussions. It is a teacher's duty to develop excellent questions or statements that will lead students to clear and thoughtful responses.

Preparing excellent questions or good discussion statements is often a difficult task for the teacher, but the results can be surprising and positive. Here are some suggestions that teachers can follow as they lead students on the path to fully developed responses.

- Write discussion statements that ask students to analyze information. Students should never be able to give a one-word answer or a short response. (Example: Discuss the changes a character goes through from the beginning to the end of a story.)
- Write statements that ask readers to make predictions based on what they have inferred from the text. (Example: Explain how the main character may choose to solve his problem. Copy sentences from the text itself that support your prediction.)
- Compare and contrast stories and the characters within those stories. This helps students identify themes and analyze character development.
- Consider using quotations, lifted directly from a story, as discussion statements. (These are sometimes used in NAEP assessments.)
- Reflect on your discussion statements to see if they will lead students to learn more about the text than they knew before the discussion.

If teachers learn to lead challenging discussion groups, students will respond with a new clarity of understanding, and teachers will begin to see a direct carryover to written responses. Students will move beyond restating information to writing responses with specific details, supporting evidence, and thoughtful explanations. ■



In 2003, 4th grade students in urban fringe/large town and rural/small town locations scored higher in mathematics on average than students in central city locations.

Source: NAEP

White, Black, and Hispanic students in grade 4 had higher average mathematics scores in 2003 than in 1990. No significant change was detected in the average score for Asian/Pacific Islander students during the same period.

Source: NAEP

Results Within Arm's Reach

NAEP assessments are developed in a variety of subject areas, such as civics, economics, US history, foreign language, geography, mathematics, science, reading, writing, and the arts. Each year, some of these subjects are assessed nationally using subject-area frameworks developed by the National Assessment Governing Board (NAGB) that draw on the latest advances in assessment methodology.

NAEP 2003 Assessments in Reading and Mathematics

In 2003, over 727,800 4th and 8th grade students from across the nation, including ten large urban districts, participated in the NAEP assessments in reading and mathematics. The Trial Urban District Assessments (TUDA) were conducted in Atlanta, Boston, Charlotte, Chicago, Cleveland, Houston, Los Angeles, New York City, San Diego, and the District of Columbia.

NAEP 2003 Results

Nationwide, average mathematics scores showed continued improvement since 1990 at grades 4 and 8. Reading scores for 8th graders demonstrated an overall gain since 1992, while no significant change was detected in 4th grade reading scores since the tests were administered in 2002 and 1992. Detailed results of the 2003 National NAEP Assessments and the Trial Urban District Assessments in reading and mathematics are available on the NAEP website at http://nces.ed.gov/nationsreportcard/.

Where and When NAEP Results are Released

Approximately six months after completing the assessments, NAEP results are posted on the NAEP website. To see a listing of all NAEP assessments, release dates, and assessment results go to the NAEP website, click on Current Activities, and then click on the Calendar of Events link.

NAEP 2005 Assessments

In 2005, NAEP will include the largest sample of students and schools in NAEP's history. The 2005 sample includes approximately 20,000 schools throughout the 50 states and Puerto Rico. The assessment will be conducted from January 24 through March 4, 2005, and approximately 1.2 million fourth-, eighth-, and twelfth-grade students will participate. The subjects for NAEP 2005 are reading, mathematics, and science for grades 4 and 8 at the state level, and for grades 4, 8, and 12 at the national level.

Three special studies are also part of NAEP 2005. The National Indian Education Study, the first of its kind, is designed to collect data on the educational experiences of American Indian and Alaska Native (AI/AN) students at grades 4 and 8. The High School Transcript Study is being conducted to provide educational policymakers with information regarding current high school curricula, course-taking patterns, and students' grade point averages (GPA) in the Nation's secondary schools. Finally, a Pilot Study of SD and LEP Procedures is being conducted in a very small sample of schools. Revised decision rules for participation of students with disabilities (SD) and students with limited English proficiency (LEP) will be evaluated. ■

Performance Trends

Continued from page 1

Science

- Average scores declined from 1970 to 1973.
- Average scores remained relatively stable until 1982
- Average scores increased from 1982 to 1990.
- Average scores were relatively stable throughout the 1990s.
- The average score in 1999 that was higher than it was in 1970.

Trends in Average Scores for Racial/Ethnic Subgroups

One of the objectives of the long-term trend NAEP assessments is to monitor the achievement of various subgroups of students, in addition to overall national trends in performance. Differential achievement in academic performance among student subgroups has been at the root of many of the educational reform efforts that have emerged over the last 30 years. The focus has generally been on efforts to reduce the performance gaps between subgroups while increasing the achievement of all students.

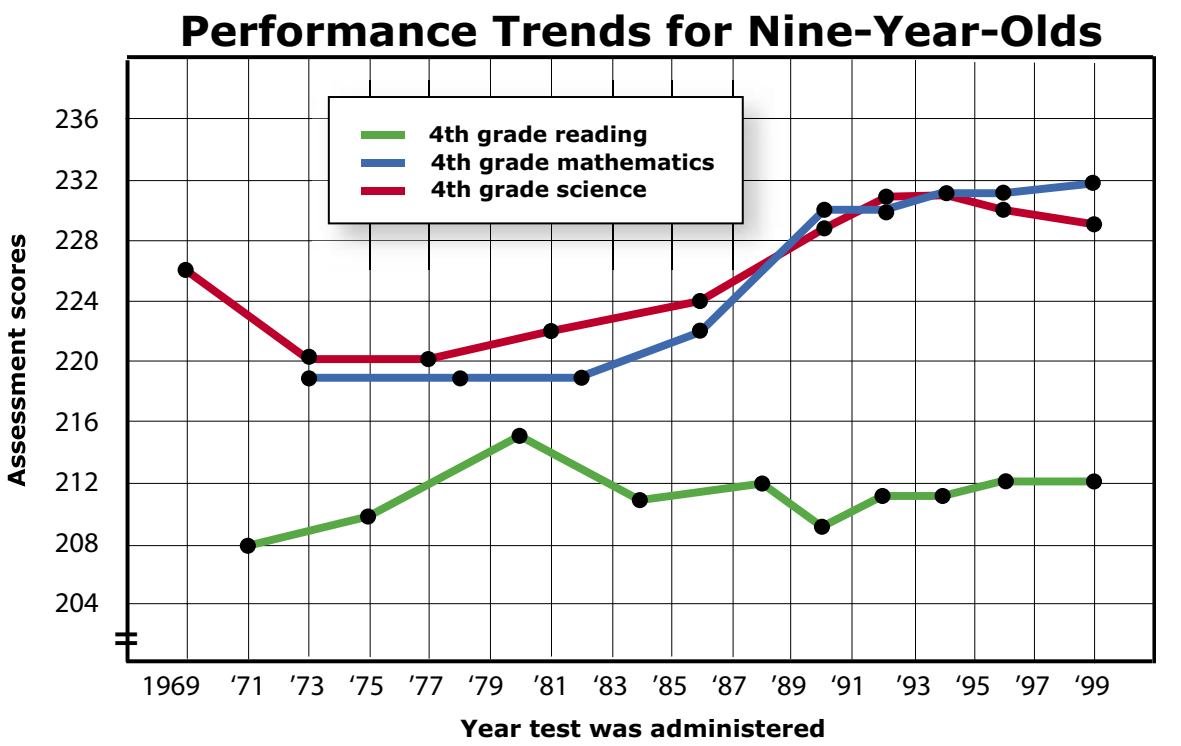
The racial/ethnic subgroups identified and reported on in the long-term trend NAEP assessment are white, black, and Hispanic students. Results for Hispanic students are not available for the first assessment year in reading (1971) and for the first two assessment years in science (1970 and 1973).

Reading

- Overall gains were evident for all racial/ethnic subgroups across assessment years.
- In 1999, white students had higher average scores than their black and Hispanic peers.
- Average scores for black students increased at a slightly higher rate than white students from 1971 to 1999, decreasing the gap between black and white students' average scores.

Mathematics

- Overall gains were evident for all racial/ethnic subgroups across assessment years.
- In 1999, white students had higher average scores than their black and Hispanic peers.
- Average scores for black students increased at a slightly higher rate than white students from 1973 to 1999, decreasing the gap between black and white students' average scores.
- The gap between average scores of white and Hispanic students widened from 1982 to 1999.



The trend lines for each subject area begin in different years depending on the first year in which that assessment was administered.

Student performance is summarized on a 0 to 500 scale for each subject area.

Source: National Center for Education Statistics (NCES), National Assessment for Educational Progress (NAEP), 1999 Long-Term Trend Assessment

Science

- Overall gains were evident for all racial/ethnic subgroups across assessment years.
- In 1999, white students had higher average scores than their black and Hispanic peers.
- Average scores for black students increased at a slightly higher rate than white students from 1970 to 1999, decreasing the gap between black and white students' average scores.
- The gap between average scores of white and Hispanic students showed little change.

Trends in Average Scores for Gender Subgroups

Overall, both male and female students made gains in all three subject areas from 1969 to 1999. A closer look reveals some interesting findings that separate the boys from the girls. In 1999, female students had higher reading scores than male students, and there was no significant difference between male and female students' average mathematics scores. Females made the most significant gains in science over the 30-year period, though by 1999 science scores were relatively equal between male and female students.

Long-Term Trend and Main NAEP

The two national assessment programs—long-term trend and main—make it possible for NAEP to meet two important objectives. First, in order to measure student progress over time, it is necessary to use the same assessment instrument in each administration year. Second, as educational priorities change, it is also necessary to develop new assessment instruments that reflect current educational content and assessment methodology. Because the long-term trend assessment uses different instruments from those used in the main assessments, and because students are sampled by age for the long-term trend assessment rather than by grade as in the main assessments, it is not possible to compare results from the two assessment programs. ■

Calming Students' Fears about Assessments

What Your Students Think

Children's knowledge of and comfort with assessments can favorably or adversely affect their performance. It is important for teachers to be aware of any apprehension that children might have about performance on a test. Some students believe that if they do poorly on an assessment they will fail their class, be laughed at by the other students, or be rejected by their teachers.

Knowing students' preconceptions about assessments helps teachers develop strategies to overcome their lack of familiarity or discomfort with test taking. Teachers can emotionally prepare their students by role-playing testing situations and discussing students' reactions with them. Establishing supportive and calming testing environments can help the students enormously. This means administering the test in a familiar location, setting a comfortable room temperature, maintaining a low noise level, and familiarizing students with test administrators.

Communication between teachers and parents can increase students' understanding of and enthusiasm for assessments. Parents can help by ensuring that their children are physically nourished, well rested, and emotionally prepared for testing. Teachers and parents can work together to convey positive attitudes about test taking.

Administering the Pre-Assessment Survey

Pre-assessment surveys help teachers learn about their students' experiences with, and preconceptions and attitudes about, assessments. Taking time for this pre-assessment will signal to students that their feelings toward testing are important. There are simple steps to follow to gather important information on how your students perceive test taking.

1. Make a copy of the Pre-Assessment Survey (at right) for each student in your class. If paper resources are limited, create an overhead transparency and have the students respond to the questions on their own paper.
2. Explain to your students that they will be taking a multiple-choice or open-ended question type of achievement test in a few weeks. Identify the test by its specific name. Explain that you would like to find out what kinds of experiences they have had with assessments and how they feel about them. Reassure them that their responses will not affect their grades in any way.
3. Read each item on the Pre-Assessment Survey aloud to the students. Wait for the students to respond before proceeding to the next item.
4. Collect the surveys. Tabulate the multiple-choice responses, and read the answers to the open-ended questions. Use the information to guide the way you will prepare your students for test taking.

5. Save the surveys that so you can compare pre-survey and post-survey responses.

Afterthoughts

The original survey was much longer, but feedback from teachers helped winnow down some items to those that currently appear. You, of course, should feel free to add items that are of interest to you.

Teachers have suggested that it might be useful to include this survey with a letter home to parents about the impending test. This might encourage parents to share with their children their own experiences with tests and their attitudes toward them. ■

PRINT

Name: _____ Date: _____

Pre-Assessment of Students' Attitudes and Experiences

What do you think about tests?

1. I have taken multiple-choice tests before... (Circle the letter of the one response that is most true for you.)
   A. I'm not really sure what a multiple-choice test is.
   B. One or two times
   C. Three or more times
   D. Never

2. The best description of my attitude toward multiple-choice tests is... (Circle the letter of the one response that is most true for you.)
   A. Tests are fun! I like the challenge.
   B. Tests upset me! I get really worried.
   C. Tests are okay. They don't really bother me.
   D. Tests are boring. I don't like them.
   E. I don't care.
   F. I don't know. I've never taken a multiple-choice test before.

3. On a scale of 1 to 10, with 10 being REALLY GREAT and 1 being REALLY BAD, how well do you think you will do on the achievement test you will take in a few weeks? (Circle the number that describes how you think you will do.)

   1 2 3 4 5 6 7 8 9 10
   REALLY BAD! REALLY GREAT!

4. What I've heard about these achievement tests from grown-ups is... (Circle one of the choices or write down your own answer.)
   A. I haven't really heard anybody talk about them until today.
   B. I heard they don't really matter, but somebody said we have to take them.
   C. I heard they're pretty important.
   D. I heard...

   _____
   _____

5. Predict how you'll do on the achievement test. Which subject do you think you'll do best on? (Circle only one answer.)

   A. Reading B. Mathematics C. Science D. Social Studies
   E. Spelling F. Language G. I don't know which subject I'll do best on.

6. When you take a multiple-choice test, how do you figure out what answer to pick? (Write about how you decide which answer to choose on a multiple-choice test.)

   _____
   _____
   _____